

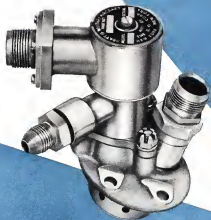
AVIATION WEEK

A MCGRAW-HILL PUBLICATION

JANUARY 24, 1949

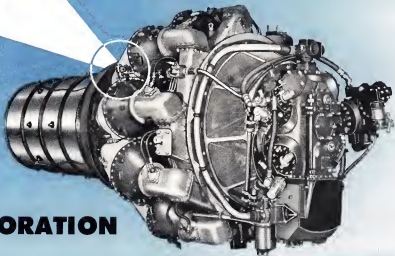
BG

turbo-jet flame igniter



*BG model M 794
flame igniter installed
on Pratt & Whitney
Aircraft JT-6B
Turbo-Wasp Engine*

The **BG** Flame Igniter was designed especially for turbo-jet engines. This self-contained unit embodies a fuel-filtering, valving and metering system, an atomizer, and a high altitude spark plug.



THE BG CORPORATION

NEW YORK 19, N.Y.

SERVING WORLD AVIATION OVER THIRTY YEARS

Relative sizes of 2-inch shut-off valves for military planes (left) and a 1-inch valve for private and commercial aircraft.

APPROVED
FUEL SELECTOR VALVES
 MANUFACTURED BY OUR
AIRCRAFT ACCESSORIES DIVISION

Type B, selector valves with electric actuator.

Type L, 3-position 1/2-inch selector valve.

Type P, 3-position 1 1/2-inch selector valve.

A precision 1/2-inch selector valve with control mechanism—also optional electric type.

OUR AIRCRAFT ACCESSORIES DIVISION produces a wide range of fuel selector valves, manually and electrically actuated, for jet and piston-engine military aircraft and commercial and personal planes.

These improved pressure precision units are designed for pressures up to 50 p.s.i. and temperatures from 160° F. down to 65° below zero. They operate reliably in no-ice as well as highly blended aromatic fuels, are lightweight and compact, and have a simple, accurate actuating mechanism that assures positive sealing of the ports when shut off. The bores are smooth for unrestricted passage of the fuel and exceptionally low pressure drop.

Our testing facilities and experience are at the disposal of aviation builders and airline operators who want to know more about fuel selector valves and other products of our Aircraft Accessories Division.

Thompson Fuel Selector Valves have been approved and adapted for use in U. S. Air Force and Navy planes.

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Products of the
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FUEL FUEL BOOSTER AND WATER INJECTION PUMPS — FUEL SELECTOR VALVES — FLOW EQUALIZERS — COMPRESSION ASSEMBLIES



Keeps ice from choking a jet's throat

ICING conditions pose a brand-new problem for jet planes. If ice forms in the narrow air intake of a jet engine, it chokes off the vital air supply. Without air, there's no combustion. And the jet engine goes cold.

To B. F. Goodrich engineers, this looked like a problem for electrically heated rubber—thick, tough rubber with a trace of resilience wires. They designed an electric rubber lining for the jet diffuser cone, to blow "thrust" that floods air to the combustion chamber (see picture above).

The resistance wires were precisely arranged to concentrate heat where it

was most needed. A thermoelectric control was added. Then, with electric rubber supplying the heat, the diffuser cone was put through a series of rapid icing tests. No ice formed! Before, cone had worn. B. F. Goodrich electric rubber was now in use on a new production model jet motor.

B. F. Goodrich electric rubber is the most efficient way at getting the right amount of anti-icing heat to the right spot. It simplifies design, saves weight. It is very flexible and has curved surfaces tightly and smoothly. And it requires little power to operate.

Besides diffuser cones, B. F. Goodrich electric rubber has done a very careful anti-icing job on propellers, control surfaces, engine cowls, air scoops, antennas and probe masts, hydroplane keels, water tanks and many other airplane parts. It is a typical development of the B. F. Goodrich research that supplies aviation with effective answers to its toughest problems. The B. F. Goodrich Company, Aeronautical Division, Akron, Ohio.

B.F. Goodrich
 FIRST IN RUBBER

**4 LOW VENTILATING
AIR PRESSURE DROP**
shown in a graph at right
on JANITROL TYPE HEATING FOR
THE AIRCRAFT INDUSTRY.



how to make a heating system breathe easily

Select a heater with low ventilating air flow resistance! Check this above chart. It shows ventilating air pressure drop versus air flow for the Model S-200 Janitrol aircraft heater, listed additive to a large, constantly growing list.

Low pressure drop means more air for the plane and greater freedom in selection of ductwork shapes, sizes, and lengths. You save weight. You get high performance in flight. Janitrol heaters use air, air, if ground operation is desired, lightweight blowers and smaller ducts move efficiently and well.

The S-200 illustrates another important feature: with Janitrol's exclusive whirling flame, it delivers 200,000 Btu/hr., yet weighs only 26 pounds. And because you can put Janitrol heaters practically anywhere in the aircraft—far precisely any heating requirement—you minimize ductwork, save weight pounds all along the line. Whenever your particular problem—for military or commercial aircraft—call on your nearest Janitrol representative for prompt service. The earlier in preliminary design stage, the better.



Janitrol

AIRCRAFT-AUTOMOTIVE DIVISION • SAFEGE CORPORATION, TOLEDO, OHIO

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with the whirling flame

New York: 4 E. 55th Building • Boston: City Bldg., 90 State Building • Los Angeles: Calif. Bldg. Interiors Building • San Francisco: 421, 1000 Market Street
(United States) Also Engineering Department and Production: Columbus, Ohio • Indianapolis, Indianapolis, Ohio



Air Mail Cards

Post Office Department estimates the new, air mail post card volume over the next six months at approximately 1.5 billion cards monthly. This is only a fraction of the one-cent card volume, which runs about 310 million cards monthly. Postmaster General Louis Donaldson is expected to recommend a boost in the regular card to five cents, and there is a good chance that Congress will approve this year—a development likely to divert business to the air mail card. Donaldson made the recommendation last year, but it was rejected. Further, the air mail card, a Rep. Harold Hays (R., Mass.) Hays has planned for it for the past five years, even Indonesian department approvals. He had an amendment authorizing the card enacted in the postal subcommittee income bill passed by Congress last year.

Pilot's Grip

Airline pilots are facing over a recent U. S. Air Force policy on return to active duty in the USAF. The new policy, outlined in a memorandum signed by Lieut. Col. Mark J. Rice of the USAF, requires Personnel Development, unless pilots who are now employed by airlines from an airline that they cannot be accepted for return to active duty with the USAF unless the management of their postmilitary airline agencies their return. Pilots, particularly those who have been hospitalized by airlines, find it a violation of their personal liberty to require air line management permission before they can return to the USAF or to the military transport pilots for the Berlin airlift.

The USAF policy is also interpreted as applying to former USAF pilots who are now working in ground jobs with airlines but want to return to a flying job with the Air Force.

No Stopping Shortage

KLM Royal Dutch Airlines will face a serious problem on its hands if it is successful already shown by India against the Netherlands' current "police action" in Indonesian waters. During the summer of 1947, KLM's service to the Far East was crippled when India closed its airports to the Dutch. The airline squeezed through by stopping at Calcutta, Ceylon. The two years later has learned passage of new kind of Dutch was not so simple. The British, Indian and Ceylonese take a rapidly united atti-

NEWS SIDELIGHTS

New Sales Peak

A new postcard push for aircraft industry sales was forecast for 1949 in President Truman's fiscal 1950 budget message. Truman estimated that ordinary aircraft sales will hit \$1.7 billion for the first year ending July 1950. This compares with about \$1.1 billion for 1948 when the industry fell into the black for the first time since the end of the war. This year's sales will contain the first reflection of the record postwar aircraft budget voted last year by the 86th Congress was the direct effect on sales coming during 1949. Industry is expected to deliver about 25 million aircraft parts in fiscal 1949, rising to 30 million parts in 1950 and slightly higher in 1951.

Strategic Shift

Military significance of the U. S. Air Force must make for more. Contrary to the conventional view of 5,000 military aircraft short range jet bombers, fighters and transport helicopters is that the emphasis will now be on strategic air power at the expense of tactical or support aircraft. USAF will not make an accurate board cut in all its combat branches to meet the 45 group minimum required by the fiscal 1950 budget. In that, it will cut its tactical air power, designed primarily for support of ground troops. In the long run its mission is to combine the bulk of a long range striking force capable of entering the functions of strategic or power, which has always been the Air Force's first line.

Watch Mahan

Rep. George Mahan (D., Tex.) was elected to become chairman of House Appropriations Committee's military establishment subcommittee in this house next to go. The group will handle all Army, Navy and Air Force appropriations. The leading contender for the post, Rep. John Kerr (D., N. C.), chairman of the Army Air Force appropriations subcommittee in the last Democratic Congress, stepped aside to take over the chairmanship of the public works appropriations subcommittee and the subcommittee on defense. Rep. Harn Stapp (D., Calif.), chairman of the Navy appropriations subcommittee in the last Congress, was in line to become co-chairman of the new national defense subcommittee. But last year's election saw him in the House then Stapp.

Canadian Hill

Grabbed by a storm in the Montreal Gazette conference, American Wrens' predictions (Jan. 17) that the Canadian assault machine was interested in selling planes built under U. S. license built to U. S. military specs. Fairchild's agents have come to no terms with Canadair Ltd. in Montreal last week. The Gazette, in a story from Canadian Press correspondent in Ottawa, mentioned the Transair design as point that the American began the selling Canada-made American designed F-86 fighters and Fairchild F-86 fighters in part of USAF's interest among such billions of dollars. Fairchild was not interested in selling to Canadian companies for its biggest customer—USAF.

INDUSTRY OBSERVER

► North American Aviation Inc. still is working on a USAF contract for a prototype and static test model of the F-93 (formerly F-48C) despite temporary shelving of production plans for the new two-engine fighter. Both flight and static test articles should be completed this summer.

► Crash of a Lockheed P-3 (C-3) at Page Field, N. C., last week was caused by an encounter shortly after takeoff with a flock of more than a thousand small birds. Air scoops were jammed with dead birds in the P-3's chined through the back just after takeoff. Engines quickly over-heated and cut out at an altitude of 300 ft. Most of the passengers bailed out successfully but three crew members were killed in the crash. One P-3's tail fin section extracted seven dead birds from one of the P-3's air scoops.

► Newsmen who were trying to fly from the Navy carrier *Sagres* to Argentina, Navylanded after the unsuccessful money dash of the *Sagres* to rescue USAF flyers down on the Greenland ice cap, were not let get the day off when the Hercules (HRP) twin rotor helicopter couldn't land the gap. The HRP was badly scratched from a Marine helicopter Squadron One at Quantico and on the trip southward was subjected to engine at temperatures of 10 below zero (last reported over Greenland). When the trip from the *Sagres* to Argentina was attempted at temperature was about 12 degrees above zero. Without time to change the extremely heavy oil needed for operation 62 degrees colder, the HRP's quickly overhauled their engines after about 16 minutes flying from the carrier and were forced to return.

► Glenn L. Martin Co. Martin (AM-1) recently took off from a Navy carrier deck at 9000 lb. load of armaments, believed to be the heaviest military load ever carried by a single engine plane. The Martin used only 690 ft. of carrier deck to take off into a 25 knot wind, carrying three full-size torpedoes, 12 five-inch rockets and four cannons with full ammunition loads. Martin is also expected to develop several later versions of the Mingo, using both Pratt & Whitney and Curtiss Wright compound engines.

► Navy is still pondering entries in a new design competition for a light speed, long range escort fighter, McDonnell, which won the request Navy jet interceptor design competition, and most of the other entries in that contest, are competing for the escort fighter design.

► Among the features veteran marine helicopter pilots want in new type transport helicopters are sliding panel type doors and streamlined fuselage in place of fabric covering.

► Hughes Aircraft Co. built the JB-3 jet-engine guided missile with the USAF now tests in a jet-controlled radio controlled version to be launched from defense aircraft against enemy aircraft and guided missiles. The JB-3 has a mid-course control loop. Hughes work at Culver City is now aimed primarily at guided missiles and missile electronics with no further development planned.

► Nobody knows better the range cost of aircraft than the Air Force. Where it paid \$59,193,000 for 27 Boeing Starfighters last year, it is now paying the same amount (\$59,427,000) for only 23 of the planes. Although this price includes spare parts, engines, propellers and other items of government furnished equipment, it does indicate that all-aided the four engine cargo airplanes will cost about \$1.7 million each.

► Air Force is planning experimental installation of its new-developed twin bed engine inlet position in the nose of a Boeing B-17 bomber. The new design concentrates all sections in the hands of the pilot, eliminating the need for under operation by two pilots, an objection to earlier design.

► Navy has added five Lockheed F-4V Neptune twin-engine, long-range scout aircraft to the fleet training program at Pensacola. The latest bi-level type model of air used for training will be used in the advanced training flight syllabus at the station.

NEWS DIGEST

DOMESTIC

An electrical system for installed in the crash and destruction of South American City's 74 passenger experimental View-Quad transport plane last week, two miles north of Wichita, Kan. Davis, pilot and former Air Force B-29 pilot was killed and three other crew members were injured.

Leslie R. Reiser, 46, pioneer airplane designer and manufacturer, died Jan. 9 at Nashville following a heart attack. A three time in his youth, he founded the Reiser Aircraft Company. Reiser is professor of Electrical Engineering & Airplane Corp. at Elgin, Ill., and later the Tennessee Aircraft Corp.

Wall Boney has stepped as public relations director of Bell Aircraft Corp. and will be succeeded by Francis W. Dean. Boney will become information specialist of the National Advisory Committee for Aeronautics in Washington.

Agnes E. Lamon, manager of the Research division of Glenn L. Martin Co., has been elected chairman of the Helicopter Council Aircraft Industries Assn., for 1949, according to J. L. Whelan, general manager of Sikorsky division of United Aircraft Corp.

FINANCIAL

Garrett Corp., parent organization of Whittcomb Manufacturing Co. and other firms, reports sales totaling \$4,100,000 for the last half of 1948, compared with \$7,100,000 for the last half 1947. Bookings in about \$13,350,000, mostly in specialized aircraft production and air conditioning equipment.

Northern Airlines will pay a quarterly dividend of 25¢ per share on the 580,000 shares of 4¢ preferred common having preferred stock. The dividend totals \$112,250.

FOREIGN

Argentina will buy nearly 34-million worth of Percival Panther fighters. Percival Aircraft Ltd. has announced. The three and British credit will become the standard basic trainer for the Argentine Air Force; the company and is identical to the planes. The Argentine government has acquired the license to make Panther trainers in Argentina.

Twenty Americans were believed killed when a U. S. B-29 bomber crashed in the highlands of Argentina, Scotland, Jan. 17, in what appeared to be the worst disaster suffered by the U. S. Air Force since war ended.

No 3

Mamba

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FOR THE SAME POWER

Mamba weight

Best piston engine weight


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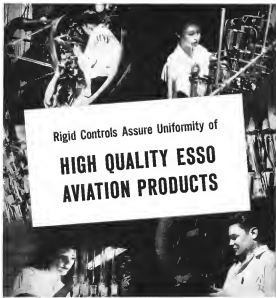
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PARADES COVENTRY (BRANCH OF HAWLEY & COLLYER GROUP LIMITED)



Rigid Controls Assure Uniformity of HIGH QUALITY ESSO AVIATION PRODUCTS

Esso Aviation Products are always of the same high quality, wherever they are sold around the world. The control of quality starts in the laboratories where 2,000 trained petroleum scientists and technicians contribute to the development and making of products to meet the specialized needs of aviation, and then set up the rigid specifications which assure continued quality control. Careless testing continues, so that there everywhere may be assured the same Esso means rigid specifications met in every detail.

Backed by over 80 years of aviation experience along the airways of the world, the Esso winged oval stands as the symbol of these carefully maintained standards. Both great airlines and private owners rely on Esso for quality, dependability and service.



ESSO EXPORT CORPORATION, AVIATION DEPARTMENT, 35 BROAD STREET, NEW YORK 4, N. Y.

Plane Order Shifts Involve \$500 Million

Boeing still tops list after changes in 1949 military business of 11 major companies.

By Robert Hotz

Half a billion dollars in military plane orders have been reallocated by the U. S. Air Force and Navy since last October. These large scale procurement shifts confirmed Aviation Week's prediction Oct. 25 that additional changes would be made in the original fiscal 1949 procurement schedules announced in both services last June.

No overall cutback in production in the amount of new plane contracts as planned in the fiscal 1949 budget is revealed. Scheduled contracts have merely been shifted among elements of the industry's 15 major airplane manufacturing firms.

► **Boeing Leads**—These shifts in future military business leave Boeing with the largest share of fiscal 1949 military contracts authorized with a total of \$112 million. Convair is in second place with \$101 million, followed by North American (\$184 million), Lockheed (\$249 million), Douglas (\$222 million) and Grumman (\$141 million).

Each two of the production changes were made this weekkeeping shifts within the procurement divisions of USAF and Navy. Convair flight, which was looking up its production on 58 F-47 all weather jet fighters, requested negotiation to terminate its \$1,500,000 backlog contract. North American is bound 3000 production orders at its Long Beach and Inglewood plants when a USAF letter of intent for the final B-45C four jet light bomber was cancelled.

► **No Formal Shifts**—In some cases, no formal notice had been given to the individual companies regarding the official business scheduled last June to come their way, thus the services. Consequently no formal cancellations or negotiation procedures will be required and the companies will suffer only a disruption of flow in their hopes for future business.

Virtually all of the shifts affected production scheduled during the calendar year of 1949. Generally, most of the cancellations will result in production lines now under way terminating sooner than originally anticipated. Some will merely experience a delay until fiscal 1950 contract authorizations are available and July to take up the slack again.

► **Policy and Program**—Navy's shifts are based almost entirely on technical requirements in newer models that superseded the planes originally scheduled for production. USAF changes combined technical advances with basic shifts in strategy and policy. Biggest switch of some \$100 million (Aviation Week, Jan. 17) was made at a recent staff policy decision to slash the back of the 12 combat group order (P-47) by President Truman in USAF cancel orders and accelerate the buildup of the Strategic Air Command's long range striking force.

Money earmarked for production of the most advanced type jet fighter (F-91) and two types of jet bombers (B-45C and B-47) were diverted to buy 38 more Convair B-26 long range bomber and four new models up to the latest performance standards. Included in the new order will be the B-26, a two engine photo-reconnaissance version of the bomber (Aviation Week, Jan. 17). Four jet engine thrust in pairs under each wing is to power the six Pratt & Whitney Wasp major turbojet engines now used.

► **Convair Growth**—Biggest winner in the procurement competition was Convair. Two companies did not have a single order in the original fiscal 1949 procurement schedule and now has, appears, nearly \$512 million worth of business out of fiscal 1949 allocations. It got a \$21 million order for 30 F-79 jet engine trainers and a prototype T-32 bomber design trainer when its commercial Convair-Lear was a stiff competitor from the Martin 2-2-2 transport for the early trainers. The additional \$16 million order was for modernizing the B-26A, gas in Convair the sort of its last game military bombing.

North American took the largest cut-back—approximately \$119 million—though prospects are good for resumption of the F-91 contract during the next fiscal year. Northrop had appear-

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Company Details

Here are details on how the shifts affect individual companies.

► **Boeing**—The Newport News plant up its flat price contract for fiscal 1949 with a Navy commitment for 5 F-111 helicopters is a cost of \$674,000.

► **Boeing**—Additional business resulting from the B-47 production contract put Boeing's No. 2 plant at Wichita back into full activity. The high volume production planned for the B-47 during subsequent fiscal years is indicated by the extensive subcontracting already done for the final production order for the 10 of the sweeping, swept backless Mustang also paid up order

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TEMCO Unveils Primary Trainer

TE-1A, adapted from Swift, designed for foreign and domestic military market at unit price of \$12,000.

A new military primary trainer has been developed by TIVEXO (Texas Instruments & Manufacturing Co.) of Dallas, and is being offered to the U.S. Air Force and foreign military forces as an entry at the basement price of \$12,000.

The TH-1A has been undergoing the first phase of a performance check at the hands of Air Force personnel at Reddick Field, La. and Randolph Field, Tex.

The Tandem single engine model, says TEMCO's president Robert McCall, was developed over the better part of the past year at the company's own expense on request by several foreign governments, including the Philippines.



Tandem contacts in transit, as well as in some eyes.

gms. 20 lbs. above the C 125 used in the Swift. It has a Samsch control-line with ratchet.

• **Mayanum Vison**—The trailer is designed to give museum visitors an idea of operation. Enclosure is Plexiglas and consists of a walk-in enclosure, two sliding sections, and a fixed rear section. Dual instrument panel is used to have sufficient instruments to meet Civil Aeronautics Administration requirements for control day and night flying. Window seats are of mahogany type, and are adjustable and removable.

Crane weight of the craft, which has a 29 ft 4 in. wing span and wing area of 336 sq ft, is 1650 lb. Maximum speed at sea level is given at 160 mph, average maximum cruising speed is 140 mph, speed at 60 percent power is 10,000 ft 155 mph.

- **Landing Gear—Retractable** Landing gear provides efficient road, **HEMCI** use to eliminate ground-looping tendencies. The craft has a tail wheel and skidable tail wheel. All gear is hydraulic/wire controlled.

The transit has large problems and a structure designed to provide maximum protection for personnel is critical to success.

Timeline details: Maximum rate of climb at sea level, 925 ft. per min. (at the first cruise, time to climb to 3000 ft. from sea level at full throttle (2700 rpm); 7 min, service ceiling at full throttle, 14000 ft. takeoff distance (full

breathable, full flaps, two local on wind and surface, 450 ft. distance to cliff, 70-ft. flycatcher, 775 ft. landing distance (full flaps) head holding on the wind, 750 ft., maximum range on (downward) for turn up, 1500 ft. (landing), 475 m.

• **Flash Lights**—TVMCO claims distinction for its TLN as the first turner to use the Flasher version of navigation lights developed by W. B. Lightdale, Inc., New York, which TVMCO now lets.

Some features of North American Airlines' wartime AT-6 advanced trainer are swapped up in the TFMCU model, which was developed with attention to stepped-up performance demands in current trainers over wartime models. Chief executives of TFMCU are all former employees of North American at the Dallas plant.

High-volume production of the new browser, contingent on orders, envisages utilization of about 90 percent of Swat's output at TEMCO's plant (1,128,500 sq. ft.) next door to Chasco Vought's new location on the outskirts of Dallas. TEMCO has a working force of 1000.



New Markets Sought for Scandia

Swedish plane manufacturer commissions Babt Co. to survey North and Central America sales potential.

The Babb Co., oldest and largest air plane sales organization, next week starts a job that may herald the end of competition from abroad that any U.S. transport plane manufacturer ever has faced.

The company has been appointed the representative of SAAB Aircraft Co. of Sweden to make a study of the market in North and Central America for SAAB's four-engine Swedair commercial transport. Unfortunately, South America is excluded, as SAAB has begun sales activity there. But Babb may get that representation later.

If the union shows a market exists for the Scandinavians and for Scandinavians port-Rabb will become the exclusive representative, the official one, for "SAAB manufacturing aircraft." Although SAAB manufactures both military and personal planes, it is understood the Rabb agreement at this time covers only the Scandinavia.

Dispute Sours: The Japanese bring together 1 U.S. company (successful in selling aircraft mainly used on crowded routes) to foreign governments and the foreign aircraft manufacturers that have produced what many engineers consider the finest transport built outside the U.S. If the same pattern returns of the agreement, Balle's optimism will be offset by modern transport with performance comparable to U.S. planes—at a price U.S. manufacturers can meet.

In the agreement with Baidu, SAB is taking short-term aim at Consolidated Vehicle Aircraft Corp's possible export market for the Chinese market. The Canadian market does not look promising for other manufacturers, there is probably no market at all for the Scanlon in the U.S. (although a plane will be bought here shortly for documentation).

purpose), it is improbable that wars will be waged in Central America. So the real battle ground likely will be South America and it will not be surprising if Bobb eventually is given that continent's war bureau.

► **Competition**—SADs, led by its founder, is more than a match for the Conservative, as indicated by a recent comparison of the two plans, compiled by the British manufacturer. The comparison also includes the British Valero Viking, but competition of the Swedish is fierce.

- **Price**—Scania: \$750,000; L-Series, \$490,000
- **Capacity**—Scania: 32 passengers, 190 cu. ft. cargo space; L-Series: 40 passengers, 425 cu. ft. cargo space
- **Engly Weight**—Scania: 20,600 lb.; L-Series, 26,577 lb.

- **Direct Operating Cost** (based on 1070 hr annual estimates and a range of 300 to 1,300 gal/acre): \$1,271 per ton milk at 208 mph, lanes; \$174 per ton milk at 322 mph

The Laser is powered (as always) by South America. The present version of the Simulac is not, although the manufacturer has plans for a powered model.

The Swedish car is designed to meet all Civil Aeronautics Administration (CAA) specifications for transport planes, and was the new Pratt & Whitney JT280 engine (Whisper 3, Nov. 22). Pratt production models will go into service later this year on the Swedish jetliner A3A. In addition, SAAB has announced orders from other European firms.

House Leaders Set

Air Aid Strategy

House strategy to boost aircraft procurement funds for the 1998 fiscal year despite President Truman's opposition had early well crystallized last week.

House, is, again in the course of a bill in Capitol Hill scheduled to arrive in Ways, that the House will start on increasing the 48 Group Air Force procurement program recommended in the President's budget to the level stipulated for the second step in a 70 Group program. They are Rep. Carl Vessén (D-Cal.) chairman of the House Armed Services Committee, Rep. Paul Kildee (D-Ill.), ranking member of the committee and Rep. Joseph Martin (R-Mich.), House minority leader.

• **Illness Strategy**—Illness strategy will be. **Illness Aired** Services Committee will build up a case to advocate the national need for the 70 Group project and program.

Joint defense chiefs—Defense Secretary James Forrestal, Secretary of the Army Kenneth B. Rusk, Secretary of the Navy John S. Wilson, and Secretary for Air Staff H. H. Arnold—will be assembled to testify before the committee on two subjects: (1) The unbroken strength of the three services; and (2) Their program for fiscal 1950.

Little controversy is expected in the first round. Authorized strength of the Navy has already been set and the reduced Army strength is not expected to cause objections. Fiscalist has indicated he will support legislative authorization for a 70 Group strength for the regular Air Force.

► **Expert Fight**—On the second round, Vinson and Kaldes—who the bucking is most if not all the members of the Armed Services Committee—will force a fight. They plan to use Scarborough's statements of 1945 year plus the 1945-1946 annual report of the A-



Key Call Viewers

June, setting the 70-Group Air Force program as the maximum, as tends for the show-down.

Kidley suggested

"It's up to us to ask Congress for the right questions, and then let them out," the aggressive Texas congressman told American Wings that at a recent conference he and Vinton held with the four defense agencies, the subject of a 70-Group Air Force was "intentionally avoided." He added:

"We know that in the presence of Forrestal, such a discussion would involve embarrassment for him (strongly support)."

Support Expected—Buttressed by the subcommittee members before the Armed Services Committee, the House Appropriations Committee is expected to back up with a 70-Group program.

Following is comment to American Wings by the three men who tried to become the top executives at the National Defense Establishment appropriate representatives of the House:

• **Rip George Mulholland (D., Tex.)**, slated to become chairman of the subcommittee.

"Last year I vigorously supported the 70-Group Air Force procurement program. My conviction that this is the maximum requirement for the national defense of the United States has not changed—although, of course, I would not want to indicate that I shall not give proper attention to the arguments of the national defense chiefs before setting a 48-Group program when there appears to be no other reasonable option."

• **Rip Harry Sheppard (D., Calif.)**, former chairman of the New Defense Committee appropriate subcommittee and slated to become vice-chairman of the National Defense Committee and appropriate subcommittee this year.

"Last year I wholeheartedly supported funds for a 70-Group Air Force procurement program. I have not regretted it. I think that the appropriate House subcommittee will give their weight as the principals of the national defense chiefs of the country. However, I believe that it is the duty of Congress to scrutinize the evidence, at every possible. It is up to Congress to see that the accuracy of the United States is secured, and to changed any budget legislation—\$15 billion as otherwise—that will not cause that security."

• **Rip Albert Thomas (D., Tex.)**, slated to become the third ranking member of the National Defense Establishment appropriate subcommittee.

"A 70-Group Air Force program is a good, reasonable investment for the United States, and I intend to support it as far as I did last year."

• **Republican Backing**—General Republic support for the drive at first drew Democrats of the Armed Services and

Appropriations committees, not matched by Minority Leader Albert's statement to American Wings: "I thought for the 70-Group Air Force program last year. And I intend to back Vinton's fight for it this year 100-000 percent."

It is more than which Vinton and Mulholland plan to think out at hearings with the defense establishment chiefs is whether the 70-Group Air Force program can be provided for under the \$15 billion ceiling. Repressive cutting out by the administration, by cutting down on allocations for other services. If it can, they will attempt some form of cut that will make the way easier for Senate approval of the 70-Group program. If other cut can cause he cut back without a too great weakening of the overall national defense potential Vinton and Kidley are prepared to support a lowering of the \$15 billion ceiling budget ceiling to provide for the 70-Group Air Force program.

• **Major Resignation**—Damon's is the second major resignation in the American Airlines-Southwest that has been precipitated by the proposed sale. Even before the two firms announced their agreement, John Strait, board chairman of AAA, resigned because he was, was not in sympathy with the move.

Informed financial circles expect that if and when the purchase is put before the NDA board, Strait recommending American Express Lines will fight it. There was some speculation last week that Damon might quit his position as chairman of Damon's leadership in the matter could be judged by the current status of his resignation. He has been in all health for some time and that there has been a logical reason for his resignation. He has made it to his own break with South. Damon took the unusual step of making his statement direct from his office rather than through AAA public relations office.

• **Lawyer to Republic**—Damon has been with American Airlines since 1958, first as vice president and general counsel. Early in his career he was named to Republic Airlines Corp. as president and generally is credited with a progressive role in stepping up Republic's production and maintenance. He had held several executive posts in Curtis-Wright Corp.]

The word back to American is president of that, South was in the Air Force. He returned the presidency after the sale when South returned and accepted the post of board chairman. The AA management step, however, left Damon as operations head and South as the policy making executive officer.

• **No Plans**—In his statement, Damon did not say "I have no plans to succeed in AA, but I am not prepared to make" but last week, unconfirmed reports were circulated in Washington that Damon might become the new president of TWA. Generally they were given little credence.

Damon's action seemed to confirm previous reports (AMERICAN WINGS, Dec. 20) that South was the prime advocate of the AOA sale to FAA, and now almost alone is working out an agreement.



Ralph S. Damon

• **Effective Promptly**—Damon had also the board to make the resignation effective promptly. But he was that AAA had a new president within a few hours of Damon's resignation.

Damon's resignation was the first step in a reorganization of the company into the PAA-AAA deal. TWA plans to ask Civil Aeronautics Board to reorganize the entire Atlantic route structure is considering the proposal, but the Air Line Pilot Union (which the reorganization would mean that adequate provisions to protect pilots were not included in the purchase agreement).

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PRODUCTION

New DC-3?

Douglas would modify planes for more speed, lower operating cost.

Douglas Aircraft Co. is holding another look at the DC-3 replacement problem. Before the middle of next month the company is expected to disclose the results of sweeping the airlines on a proposal to take in old DC-3s and to greatly modify them so they would be substantially new planes.

In fact, the plan would cost as much as \$158,000 (\$200,000 per plane) Douglas would replace the older wings with new high-lift wings, back up new design and airframe, and the cabin to suit 50 passengers, built up the wing root and nacelle structure, and install 1475 hp. Wright G-580 engines.

• **Standardization** in Hartsfield-Whitcomb. A Bell spokesman said the plan depends not alone on the service the company now is making. It will be decided to some extent on the service Douglas airlines have in getting aircraft to agree on a common configuration and support systems in a mid-flight base could turn out the planes at the greatest economy—and profit to Douglas.

When raised, Douglas undoubtedly will get considerable criticism from its customers. The DC-3 is a proven performer, and even more important, replacement of its low parts replacement business, which has been a consistent money maker throughout the life of the airplane.

Its advance of the public imagination as of its decision, the company is doing little talking about its current proposal. The Douglas DC-3 has been in service since 1935, and the company made available detailed drawings and specifications and still didn't mention another buyer interest, Douglas claims that it has not been prepared to "enter a competition."

• **New Designation**—However, cockpit probing has turned up some definite facts on what the new plane would be like. It would have a new, and still undesignated, serial designation. It would not be about 20 percent heavier outside costs of current flying but engine equipment at sub-grade level factors.

The modified DC-3 would offer a 50 percent increase in speed over current versions. It would show a 10 percent saving of 30 cents per mile at

200-mph. Stage and 35 cents at a 400-mph. range. Gross takeoff weight would be 25,000 lb. Empty weight would be 18,000 lb.

Bell Subcontract

Bell Aircraft Corp. set off a "several hundred thousand production order" as a result of the contract of a \$7,775,072 subcontract from the Boeing Airplane Co.

These series, engineering Bell's present force of 1500 engineers, probably will not be added to the payroll for several weeks after engineering plans on the subcontract are completed.

Under the contract approved by the U. S. Air Force, the Bell plant will build power plants, horizontal stabilizers and other parts for Bell's Boeing bombers. Bell has about 30 of its engineers work in the Boeing plant in Seattle, Wash., to assist in the production engineering.

A Bell spokesman said it probably will be "two or three months before bomber production" of the Boeing bomber plants is under way at Bell.

Bell's efforts of the order goes Bell's efforts to begin its position in a leading aircraft engine supplier since the firm, the second multi-million-dollar subcontract order placed with a Buffalo company by a major aircraft producer is a month.

At the end of November, the TWA Coach Co.'s Buffalo plant received from the Curtiss-Wright Engineering Corp., Buffalo, N. Y., a subcontract totaling over millions of dollars. TWA Coach's plant now is undergoing construction for the order.

• **J-47 Subcontracts**

Adding to past sub-deliveries of J-47 F-47 engines, the Douglas Aircraft Co. has signed to become manufacturer of Dodge Copper Products Corp. The new president, associated with the company since 1955, had been executive vice president since 1952. Following him is Arthur L. Warner who remains his past as treasurer.

• **Curtis-Wright Corp.**, New York City, elected Clement Watters secretary, succeeding Miss J. M. Scudlark. The new contract is an agreement to build the fuselage for all classes of C-124 stock.

• **Continental Motors Corp.**, Moline, Ill., appointed Thane A. Engstrom new manager of the president, succeeded by John J. Engstrom. He also is a vice president.

cut out some machine tools and some machine chucks, and Douglas will make those parts and also all frames and construction chucks. Dollar value of the contracts was not disclosed.

WHO'S WHERE

Consolidated Vetter Aircraft Corp. appointed Ernest Wingenbach, manager of the San Diego branch. He has been a consultant for the firm since 1954, and with Conover since 1942. For several months he has been San Diego vice manager.

Alma Gannon of General Motors Corp. has been appointed J. A. McFarland, vice president. He has been with GM since 1928, currently serving as controller for the West, Ontario, Ontario, Ontario, Ontario.

General T. and Robert Co. named Arthur L. Warner as vice president, assistant of California operations. Under this section of the company is also Engineering, Corp., Ames, Mass.

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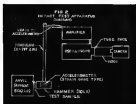
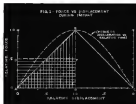
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New Helmet Protection Theory Advanced

Headgear makeup based on impact resistance rather than energy absorption designed to give more safety.

Highspeed flight has intensified the action of gusts on the pilot to an extent necessitating employment of protective headgear to guard against injury from striking the canopy.

The use of pyrotechnic canopies has also made head protection mandatory, because of the previous twisting effect of the shipments in the canopy leaves the cockpit-protruding, a "trouping" self action of canopy edges into the cockpit. High striking and landing speeds at jet aircraft has demanded increased pilot protection against ground loops and ground landings. And slightest air puffing, deck swaying and carrier landings are often accompanied by large loads requiring pilot protection and protection.

► **Extensive Study**—To meet this peak loss of impact resistance pilot helmets have been fabricated in the past, of resilient material designed to distribute the impact force and provide protection against penetration of the helmet by sharp objects in the event of a crash. However, recent investigations indicate that bone injury can also result from acceleration of the head. It is equally important, therefore, not only to provide maximum energy absorption but to limit the acceleration of the head.

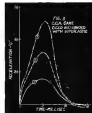
In the spring of 1945, development of an improved protective headgear for aviation was undertaken as a project in the Aeronautical Laboratory, School of

Medicine, University of Southern California, Los Angeles.

This program has been principally the work of Charles F. Landard, lieutenant P. Roth, Arthur G. Goss and James Z. Klein, all of the school's Dept. of Aeronautical Medicine.

Initial investigations revealed that not only should the outer shell of the helmet possess both maximum force-distributing and penetration resisting characteristics, but the space between the shell and head should be filled by an consistently non-resistant, energy-absorbing material.

► **About** Resiliency—Classical dis-



charge of resilient material for the job of energy absorption is that during deflection it stores rather than dissipates energy. As it is deflected, an opposing restoring force is created which causes a resistance at the point of maximum deflection and the energy is released in the form of a rebound of the helmet from the object. This effect of a perfectly resilient material under impact loading is illustrated in Fig. 1.

Point A represents the initial point of contact of a moving object with a perfectly resilient material. As displacement proceeds from A to G, force rises to the value shown at H. Since force times displacement is work, which is proportional to energy, the vertically hatched area in triangle ABC represents stored energy, which can work be dissipated by accelerating the object in the opposite direction.

Since force equals mass times acceleration, when the object has been subjected to an increasing acceleration, in the direction opposite to its original motion from A to G, Point B therefore represents a peak of acceleration as well as of force.

► **Non-Resilient Materials**—In contrast, assume that resilient DP represents a constant force produced by deflection of a perfectly non-resistant material in which process the energy is assumed completely dissipated. Work done, or energy absorbed, is represented by the horizontally hatched area ADGF.

This was in the same as that of triangle ABC, indicating that the same amount of energy has been absorbed at only one-half the force and acceleration



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cial oils and greases have the approval of every aircraft engine manufacturer, and measure the specifications of both Army and Navy. Commercial and private planes find Socome-Vacuum products at more U. S. airfields than any other oil company. For specific recommendations, contact your nearest Socome-Vacuum branch office.

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Most satisfactory non-rebound, energy absorbing type of material incorporated to date is the porous class of foamed or cellular plastic products. When subjected to compressive loads such materials deform only slightly until the load reaches a value at which destruction of the cellular structure begins. The material will then deflect to about 1/3 of its original thickness without much further increase in applied force.

■ **Test Setup, Data**—To provide dynamic load test data, the apparatus shown in Fig. 2 was developed.

The device consists of a large room (about 10 ft. high) the test specimen is mounted, a pendulum hammer which can be released from different heights and allowed to strike the test specimen with various velocities and quantities of kinetic energy, calibrated strain gauges in aluminum inserted within the pendu-

lum head, amplifiers for the output of the gauges, an oscilloscope operated without sweep and a 15 cm camera operated with the film moving at a uniform speed of approximately 16 in. per sec. to record displacement of the spot.

Fig. 3 indicates the type of data obtained with this rig. The test material is cellular cellular plastic, steel and bonded with superglue. The shape of the curves approximate the sine wave shown in a dotted line in Fig. 3. This latter curve is a plot of force vs. time, rather than displacement, the time axis of coordinates used for Fig. 3.

Similar tests of composites for other materials indicate that acceleration varies drastically with materials. For example, an ordinary gold ball coated on another steel (in a negative direction) of an estimated 150 G, solid material an acceleration of 75 G, solid cellular cellular plastic 40 G.

The three curves in Fig. 3 indicate

three different levels of kinetic energy level, except for actual velocities, all are of the same general shape.

■ **Material Mixings**—Most successful material so far tested is cellular cellular plastic with cross-cure saw cuts into which foam rubber is melted. The foam rubber is also melted over the surface of the material.

By selection of the proper spacing and shape of the cuts, characteristics of the foam rubber and thickness of the rubber in relation to that of the cellular material, a resulting product can be formulated having energy absorbing characteristics which are controllable throughout a fairly wide range.

Such a material has been applied successfully to the "Tuplex" helmet (Armstrong Works, Oct. 6, 1945) made by Precision Equipment Co., Ingleside, Calif. This helmet is now being supplied to the Air Force, Army Ground Force and Naval Aviation

handle the highest load and drops the most power in any regulator ever designed.

Each of the three regulators consist of a tall, 30 in. high casing, an electrolytic salt solution. Movable electrodes are suspended in this solution, their separation distance controlled by a last mechanism. Equal values of resistance can be placed in the circuit for each phase by regulating distance between the electrodes.

■ **Start-Up**—A vital part of the system is the starting mechanism, which must be operated in such a manner as to insure the load power system. The motor is started in tandem, the first being so referred to about 50 percent full power load before allowing the second motor to cut in as the power being supplied for the third motor. This sequence starting accounts the use of lighter starting equipment, which can handle 55,000 kw. from the capacity utility line.

The tremendous power requirement for this tunnel will make it necessary for NASA to utilize local Cleveland power plants of operating schedule requirements. The tunnel will only be operated in the early morning hours to prevent interference with local power needs demanded during the day and early evening.

Despite the unwarmed toe of the equipment, the tunnel is operated by electronic controls mounted in a remote control station.

Although the huge motor are involved, completion of the tunnel needs installation of compressors, blading and steam equipment. When completed here this year it will give the U. S. the largest and most advanced subsonic and supersonic testing facility.

at the largest bottleneck effect.

This huge power is required to turn the seven-stage compressor of the new tunnel, which contains 454 individual blades and weighs 600,000 lb. Despite this great weight, the motor is an accumulator instead that a 1-ton weight placed on one of the blades is enough to turn it.

■ **Regulators**—Design of the motor motor for the tunnel required solution of complex problems. The units are square-circled, 6-pole, 6000 volt, induction type devices using 3-phase, 60-cycle power from standard lines.



Drive for Huge Supersonic Tunnel

Three 29,000-hp. motors hooked in tandem to turn seven-stage compressor in Lewis Lab test facility.

Greatest amount of power ever placed on a single shaft by electric motor drive will be used to operate the new 6x8-ft. supersonic test tunnel at the National Advisory Committee for Aeronautics' Lewis Flight Propulsion Laboratory, Cleveland, Ohio (Armstrong Works, Dec. 11, 1946). The huge tunnel is capable of a maximum speed of Mach number 1.8, the equivalent of 1,570 mph. under standard sea level conditions.

The drive system comprises three General Electric motors each developing 29,000 hp., to afford a total of 87,000 hp. on a single shaft. This tremendous power is the equivalent of 35,000 hp.—enough to supply the needs of a 70,000 population community. The system actually has an over-all capacity of 100,000 hp., more than twice as much

"... have given themselves to all sorts of trouble to make them more and more reliable." ... Watson.

Performance talks

"... usually require less maintenance (insufficient), better (better and in fact)." ... United.

"... We have been able to reduce maintenance costs with these starters." ... American Overseas.

"... among the most reliable pieces of equipment we ever installed." ... Delta.

"... Jack & Heintz Starters have given excellent service with minimum maintenance." ... Delta.

"... Jack & Heintz Starters are being operated 500 hrs. between overhauls, a tremendous improvement over 400." ... Mid-Continent.

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New CENTRI-DIE Equipment at
Lebanon Steel Foundry

General Type Centrifugal Die applicable to
CENTRI-DIE Production

per season, and the operation is complete.

Two sensors can bring the plane into the loading position and perform the ground services for refueling, sewage, water, checking tires, and loading and unloading baggage while two maintenance attendants, check oil, service engines, provide electrical connections and stand by for fire protection.

Thus, four men can perform all services in much shorter time than eight men take for the same operation at most airports today.

A large-diameter conduit is desirable for such systems. It permits installing only the immediately necessary utilities in the first stage of construction and adding others later, as air traffic grows without tapping up the open surface.

Safety Provisions. Maintenance and repairs of utility lines can be made inside the conduit without hindrance to aircraft operations on the apron.

To prevent accumulation of product exposure to the conduit, there is installed at each alternate manifold, a customer knock-out and an explosion-proof exhaust fan capable of changing the air in the

section between fittings every two minutes.

In addition, a gas detector, sensitive to two percent of gasoline vapor in the air, is installed in each section. The detector is connected to a control station alarm which can be mounted of vapor collectors in dangerous sections.

Additional safety is provided by enclosing a longitudinal 12-in. minimum perimeter wall that divides the conduit into half and acts as a firewall. On each side is a 21-in. walkway.

In one half of the tunnel are the electric conduits, communication lines, heat and exhaust outlets, with adequate space for future additions. In the other section are the fuel, sewage, water and compressed air lines, and related utilities.

Tunnel Cost. Estimated cost of the proposed underground conduit, with fuel lines and water for other utilities installed, is \$80 per linear ft., or \$17,000 for each 17-ft. air loading position. Estimated cost of two feet per ft. with equipment to deliver 400 gpm. is \$3,000, making the total cost of the underground fuel system \$15,000 per loading position. The maximum risk

estimated useful life of the underground system is 50 years.

Refueling at most airports is done by trucks. To ensure continuous refueling by this system requires at least two trucks at a total cost of \$50,000—four each loading position. Life of a fuel truck is estimated at 5 yr.

For the same construction cost paid for above, the underground conduit is available for carrying other airport utilities. A system of approximately 530 per cent of loading positions could be installed as electric and communication utilities through the elimination of underground conduits which would otherwise be required.

To obtain the viewpoint of interested people on such a proposal, the design criteria for the utilities conduit have been submitted to such groups as the Air Transport Association of America, American Petroleum Institute, aircraft manufacturing companies, and aircraft maintenance and oil companies. Comments that have been received from the Civil Aeronautics Administration, the Air Force, and the Chief of Engineers, U.S. Army.



Crash Radio Aids Rescue Search

Then 10-ft. crash radio set, held by its operator, Capt. Ivar Fredrickson and Sgt. Frank Piers of the Washington National Guard, is designed to be held in the tail of a biplane, on rubber supports.

A trip switch goes off on impact and starts the radio operating, while a counterbalance holds the 15-in. antenna upright. The transmitter works on a frequency of 143,820 kc., giving a signal for 100 ft. with two-ton batteries.

Transmitting devices in "line of sight" on the ground. In the test area it has been found to be 18 mi. In event of a water crash, the set will float.

It's believed that the device could be made to hold the set more than 500 ft. produced in quantity. Further testing and development of the operator is being carried out.

Idea for the crash set was conceived by R. C. Wood, Washington state gun technician, who has spent much time searching in the rugged mountain areas for 45 planes still missing.

He knew of some plane crashes when rugged fumes might have been caused if accident could have marked their location. A radio which would start up on impact of the tail of the crash and send out a continuing signal was the answer, he assumed.

Metal-Stretcher Use Extended In Industry

The "hinge stretcher," developed during the war in Goodbye Aircraft Corp., has been sold to the Conl Bath Co. of Cleveland and is now being offered commercially to industries.

The device is basically a stretch press but without a power drive, available at the operating element, rather than a conventional line stretcher.

One end of the tow stock is attached to a fixed base, the other end to a clamping device on the turntable. As the table turns a force is exerted against the tow stock and tended to apply a stretching action which causes the metal rod in the shape of the form.

Both Goodbye and Bath used the same principle during the war for the forming of a wide variety of aircraft parts. Wing attack angles for the Convair C-46 were formed at four by four extended angle stock held in close contact with a turntable. The turntable, according to wing shape. Parts for Curtiss, Boeing, B-24 and others included tank straps, wing tips, engine parts, fuselage rings in both aluminum and stainless steel, gun angles, mid-chamber supports, engine mount cases, etc.

The stretcher is now being applied to produce jet engine mounts and liners and a wide variety of complex forms for aeronautical industrial applications. Aluminum alloy, stainless steel, bronze, magnesium and steel stock is being handled by the device.

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LETTERS

Helicopter Comments

As a result of the helicopter crash on Jan. 23, "Let the Oiling on Men's Capers" of which the following are examples:

"It is true, in my opinion, that the helicopter is a dangerous mode of transport for the military. The personnel who fly it are not trained to fly it and are not trained to fly it in the military."

However, I would say the helicopter is not a dangerous mode of transport for the military. The personnel who fly it are not trained to fly it and are not trained to fly it in the military. The personnel who fly it are not trained to fly it and are not trained to fly it in the military.

Do you know that there are absolutely no loads available for helicopter transport other than Wright Field or the Bureau of Aeronautics? In addition, this condition has caused for some time.

As a result of the crash on Jan. 23, I am sure that the construction of the helicopter is not a dangerous mode of transport for the military. The personnel who fly it are not trained to fly it and are not trained to fly it in the military.

It is true, in my opinion, that the helicopter is a dangerous mode of transport for the military. The personnel who fly it are not trained to fly it and are not trained to fly it in the military. The personnel who fly it are not trained to fly it and are not trained to fly it in the military.

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one thing is sure to get this and other we had to look to work.

Perhaps the simplest way of doing this is to make the military and civil to make immediately the full report of all new developments which are placed before them.

You stated in your previous column that the helicopter is a dangerous mode of transport for the military. The personnel who fly it are not trained to fly it and are not trained to fly it in the military. The personnel who fly it are not trained to fly it and are not trained to fly it in the military.

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SALES & SERVICE



Odum seen also, looking at Oakland Airport

Odum Plans to Break Own Record

Hopes to make second Honolulu-New York nonstop try; rough weather cut first attempt short at Oakland.

By Alexander McArthur

Capt. William P. Odum is already planning a second attempt at a 5,000 mile Honolulu-New York nonstop flight in the same Beech Bonanza which he crashed last week at Oakland (ENR) Municipal Airport, after completing 2,000 miles of the trip.

Charles Logsdon, NAA contract test pilot, said that Odum's first attempt at the flight was cut short by rough weather at Oakland (ENR) Municipal Airport, after completing 2,000 miles of the trip.

Odum's second flight attempt plans will be made within the next two months following weather complete checkup at the airport at the Beech Bonanza. He had considered making a flight from Honolulu to Los Angeles, but the weather was too rough.

Odum left Oakland to fly the plane back to Hawaii, but was stopped by weather at Tucson, and left the plane there for a quick trip to New York, but crashed in flight.

Reck officials pointed out that the action of Odum in attempting the flight at Oakland had their complete approval.

The flight was made in constant communication with land stations and was carried out with full safety precautions. The pilot reported to the company that

the engine "functioned perfectly" and that he was confident it could make the full route with reasonably good weather and accurate forecasting.

He stated from Honolulu with a fuel cost of about 45 miles of thunderstorm weather of the 75 hr. thunderstorm as a serious concern.

The estimated 100 gal fuel tank loaded with more than 60 gal in the tank. Normal Bonanza tank capacity is 40 gal but he had an extra 100 gal tank in the cabin and two 60 gal rapid empty tanks, in addition to the regular tank.

Except for special fuel tanks and special radio and instrumentation modifications the engine is essentially a standard Beech model. A15 low price oil metal bearings, painted with a low temperature paint, and a 100-hp engine with 385 hp takeoff rating.

"Buzze-Boy" Nabbed

New California air regulation act set a "buzzer" flight statute 1990 and a severely pilot act under which he was brought before City Court Judge Deane Loughlin in Santa Maria, Calif., and pleaded guilty to reckless and dangerous flight.

Witnessed 27-year-old Ernest E. Blevins, of New York, had tested a Beech Bonanza in Prosser and "buzzed" the Santa Maria area. A week later, he came back for a repeat performance when the FAA inspectors, San Francisco office, seven city police and two FBI air quality monitors watched. He was finally on low on gas, went into Hercules Field for a second approach, but crashed in a low landing.

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• COMING FEBRUARY 28



1949 PROGRESS

REPORT

ON U. S. AIR POWER

Aviation Week's 16th Annual Yearbook will report the first year's progress of our Air Power rebuilding program

The resurgence of U. S. Air Power dominates the news... both domestically and internationally... politically and economically.

One year ago Aviation Week published its new feature "Resurgence of U. S. Air Power"... explained then that our country's position of world leadership depended upon the strength of its aviation establishment.

This year... February 28th... based upon the same initial premise, Aviation Week will present its progress report on U. S. Air Power... what has been done about it since the 16th Congress voted the 46 air groups... what is being done... what is likely to be done.

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This will be a complete and detailed report of our country's entire aviation resources and facilities... profusely illustrated... completely documented...

If you want extra copies of this year's edition, be sure to order in advance... Last year's sold out in less than a month! Copies will be available at \$3 each, postpaid.

To those companies engaged in the air power rebuilding program... either directly, or indirectly... this 16th Annual Yearbook of Aviation Week offers very unusual advertising opportunities. Register advertising rates apply... Closing date, February 15th. Write or wire your reservation.

Goodyear's Beech Bonanza Kept Busy by Salesmen

Example of the effective use of a post-war airplane in sales work is the record made by Goodyear's Tim E. Rabler Co. Aviation Products division pilot sales men with a Beech Bonanza purchased in May, 1947. Already it has been ordered well over 500 in the sales and other business travel.

The plane is operated alternately by Jack Leonard and C. A. (Buck) Johnson, sales engineers. Most of this business is directly with aircraft manufacturers and aviation distributors, so the plane usually takes them directly to the expert knowledge of the firm on which they are calling.

The Bonanza also serves as a demonstrator for Goodyear aviation products sold in conjunction with the sales which include fuel cells and aviation carburetors and various other products which are made by the company.

Johnson and Leonard check on engine and maintenance records and occasionally fly the Bonanza to the West Coast for other markets there. Leonard cites as an example of his record a 7300-mile trip made in the Bonanza in a week from Los Angeles to Wichita, Dallas and return. He usually plans his sales trips to return in about six to the west coast. The few the Alton Wichita leg of his trip reaches (plane serves as an auxiliary tank, its luggage compartment) is 4 in, 30 mi. a average 191 mph ground speed with help of a tailwind.

Van Nuys to L.A.

Argentinean from Van Nuys, Vincent Antonio of the Metropolitan Airport at Van Nuys, Calif., in the City of Los Angeles (No. 51), has been announced by Department of Airports Manager Clair Cecil Young.

The report was stated as a private field and was acquired by the military aviation during the war. Improvements include a 6800 ft runway and a large aircraft maintenance center, which is currently being used to house the Aviation Maintenance Corp.

Los Angeles will take possession of the field and operate it as a public airport beginning next month. The city will take over the government's contract with Aviation Maintenance Corp. and the aerial payments for the maintenance costs.

California National Guard will continue to maintain its 1424th Fighter Group at the field.

Value of report is estimated by Air post Manager Young at between \$150,000 and \$250,000.

It is the last property of this type to be sold by WAA in the Los Angeles area.

BRIEFING FOR DEALERS & DISTRIBUTORS

BENDIX RADIO SALES UP—Deliveries of Bendix flight radio (one year) placed sales in 1948 showed an increase of more than 10 percent over 1947 deliveries. J. W. (Shuff) Colvin, aviation radio manufacturing manager reports from Billings. He forecasts a further increase of at least 20 percent in 1949, and very individual distributors are optimistic about Bendix business growth and sales.

Considering that 1948 was about as lean a year as can be expected in personal aircraft for quite a while, the Colvin optimism for 1949 has some basis in reality. Trend of personal aircraft sales is going increasingly toward three-place (most of which require radio) and away from the one-place, open two-place.

It follows that the proportion of salesmen to placeowner might be about steady next year. Colvin also reports Bendix Aviation radio distributors ordered in on "Christmas manufacturing" in December, and took 75 percent greater deliveries from the manufacturers in December 1948 than in the same month in 1947.

FLAT RATE BONANZA MAINTENANCE—Southern Airplane Co., Dallas, has announced a comprehensive list of flat rates for routine maintenance on the Beech Bonanza. Sample rates: 180 in. inspection time as defined by Beech, \$70; wing dings, \$1; service and repairs flat rate \$2 (all quotations are labor only).

Bonanza flat rates are stated as supplement to the flat rates catalog published by SAC last year which included engine overhaul and avionics flat rates. Additional rates are being made on other airplanes used by business firms, and other flat rate price lists on these will be issued later.

STATE DIRECTORS COMMENT—As a result of the flight division stations last fall at Bendix of the modification to sport engine and poppet noise of a standard Piper triplane, master and a Stinson design, Charles Scott, Massachusetts aeronautics director has been getting a numerous collection of favorable reaction.

He noted last fall, by sending out letters to state directors who attended the NAAACI convention and discussed the demonstration of Aeronautical Research Foundation.

Sample comments: Warren Cross, California: Results... almost unbelievable... Principles developed could go a long way toward populating western, particularly in vicinity of airports...

Bill Luzzan, Florida: If the general public supported that it were experienced enough to quiet airplanes to the extent demonstrated, I fear that legislation would be possibly introduced requiring allowing of aircraft just as was done 30 years ago when automobiles lacked mufflers...

C. F. Correll, Indiana: I was amazed at the questions with which the aircraft operators... Experiments now being conducted should include a test of the necessity in order that the general public can learn first hand what it is possible.

Frank Wiles, Missouri: Modifications necessary to accomplish development of a quiet structure seem fairly simple in use. I would think that some degree of private aircraft would see the value of incorporating the principles now developed in aircraft production.

JOHNSON FOUR-PLANE—In the time they is published of all goes well Johnson Aircraft Corp., Tyler, Texas, should have conducted its first test flights on the Beair, aircraft 187 ft. four-place, which claims distinction of being the first airplane to provide more than incorporates at least for increased performance.

MACDONALD REMIGNS—When Alfred Macdonald, Wichita director of parks and airports for the last 26 years, resigned recently because of increased ill health, neither took a pension in the still small field of men who make municipal airports pay. Macdonald is credited with a major share of the development of the Kansas City Municipal Airport, and also did important work on the development of an overall national airport program with congress and other municipal officials and federal agencies.

Emory L. Cox, former director in the past year during Macdonald's illness, succeeds him at Wichita. —ALEXANDER MASTRELLI



Viewing Whitcomb. Airline of the British. Hellen-Hillary, Germany, is making an design of flying wings with better flow and jet engines for long range commercial flights. One of the proposed designs for an A-10 flying wing jet transport.

Jet Airliners Three Years Away

When British turbo transports available they will be cheaper to maintain than piston planes, Whitcomb says.

A capsule summary of the political and personalities of jet propulsion in the commercial field has been given at various operations and engineering events by the Air Transport Association Vice President William W. Arnold following discussions with Sir Frank Whitcomb, jet propulsion pioneer.

Whitcomb, who is now a technical advisor for British Overseas Airways Corp., stated today that a jet transport could not appear in less than three years. But he added that a British jet model would be available more closely following 1975.

■ **U. S. 100 Top Engines—**Whitcomb, in Great Britain's forthcoming airlines program of that hope for the future on the de Havilland D-10 100-mph wing transport powered by four turbojets (Aviation Week, Oct. 13). This transport 40-passenger airliner has been designed to cross the Atlantic in 6 hr., burning 60,000 gals. above 40,000 ft.

Whitcomb said he was interested in U. S. programs in cutting down air traffic delay and American airlines are how the jet transport could be brought into congested airports. He felt that the jet could be held for a maximum of 10 minutes in stock.

■ **Leading Provider for Jets—**The approach Whitcomb seemed to be taking with the jet transport is similar to that adopted by the U. S. Air Force with jet planes—they will carry payload over other types of aircraft and will be loaded in

security. The present problem is one of security of the jet engine, given jet engines the regulator of air transportation obtained by some of commercial transports will suffer greatly. British development of the jet engine has not met with great success, Whitcomb declared. He said 1960 jet had been obtained from early under operating conditions without accident or replacement of integral parts. The 100 ft engine test indicated 100 hr. of tested time.

■ **Reliability Answer—**Whitcomb stated that the reliability of the jet engine is the key to the success of British jet engine engines. He declared that it could be made more reliable (operating 10,000 to 20,000 hr. without overhaul) provided the operator limited the engine speed to meet costs as much as possible. Reliability and deterioration of jet engines is increased considerably by operating at the additional 15 to 10 percent power for takeoff.

Jet units will decrease overall aircraft maintenance expense by 60 to 70 per cent, Whitcomb said. This includes savings in both maintenance and unit cost.

■ **Whitcomb Finitized—**The British expert declared that the stability and lack of vibration of the jet will allow the majority of present-day aircraft maintenance difficulties since most troubles with transports are due to vibration and fatigue associated to engine types now in use. He said it is a fact that a small cost can be balanced on the jet coming with the engine operating at normal cruise conditions.

Arnold questioned Whitcomb's signal to improvements or increased efficiency which would result from the proposed commercial engine which has been published recently by U. S. engine manufacturers. Whitcomb replied that the maximum saving at 4 percent is fuel due to the slightly increased efficiency of the proposed engine over the piston engine, would be more than offset by the added maintenance costs and complexity of the new unit.

Upon returning to England following his American tour, Whitcomb said there was a real market for jet transport in the U. S. Given proper encouragement, he asserted, British manufacturers might capture the American and other markets.

Nonskeds Brace For CAB Crackdown

Unidentified airlines which are facing a possible death sentence in CAB's proposed tightening of the nonscheduled telephone order certificate rules to a side-to-side group—National Independent Air Carriers in battle the imminent crackdown.

Compared to an unregulated airline association representing operators in all parts of the U. S. and its territories, NINAC has attacked Federal subunits as a method of developing air transportation. It has ordered CAB for allowing commercial airlines to a "taxi rule" and asserted that elimination of the independent would have a catastrophic effect on U. S. industry by restricting the number of transport planes operating.

A public campaign designed to acquaint Congress and the public with the independent carrier fight to stay in business is contemplated by the new group.

■ **Headquarters of the National Independent Air Carriers** is in Washington. Executive committee of NINAC consists of Airtel Blood, president of Air Transport Associates Inc., Seattle; Stan Wynn, president of Standair, Inc., Long Beach, Calif.; R. R. Bahl, president of Viking Airline, Burbank, Calif.; and Fred A. Miller, president of Air America, Inc., Boston.

The seven-fold speaker's move to take concerted action against CAB's proposed revision of the nonscheduled certificate rule in the Board evidenced the decision for comment on the staffing of regulations from Jan. 15 to Feb. 1. Oral responses to the new rules is scheduled for Feb. 15.

How Mail Pay Award Will Benefit Capital

As a result of favorable Civil Aeronautics Board action toward actual rates, Capital Airlines has been able to affect some rate-reducing improvements in its financial condition.

CAB's action gave the company about \$1,500,000 in additional net pay payable to 1967 and 1968. At the end of each, before receipt of cash additional funds, the company's cash and U. S. government securities was reported slightly above \$4 million.

It had paid present permitted Capital to pay \$1 million toward the reduction of its \$4 million deferred bank loans. It is believed that when the Post Office actually makes the added mail payments now due, another \$500,000 of the bank loans will be retired. It is also possible that later in the spring still another \$500,000 will be paid by the banks, reducing the loan to \$2 million.

■ **Gain on Delinquent—**Holders of the company's 18 percent convertible debentures also stood to gain. A total of \$661,875 in pay for coupons deferred in 1967 and 1968 along with the net due Apr. 1, 1969, has been deposited with the Manufacturers Trust Co., trustee for the debentures. Payment will be made on the interest date next Apr. 1.

Further, the company is expected to accelerate the interest payment due Oct. 1, 1969. "Accordingly, each holder of \$10,000 principal amount of debentures will receive \$57.50 on Apr. 1, 1969, with the likelihood of another payment of \$17.50 on Oct. 1, 1969.

Following the forthcoming interest payments Apr. 1, 1969, fixed expenses are expected to become lighter and scheduled to be completed by May 1. During this short period, at least \$1 million principal amount of debentures are to be purchased for retirement. This will raise the \$100,000 amount of principal debentures outstanding for 1967 and 1968.

■ **Mobilization Due—**There are reports that further attempt will be made soon to include certain provisions of the defense amendment to the company's debentures. The extraordinary purpose will be to permit additional borrowings, presumably for equipment purchases to cover short of the debentures. As per the "provision," the debentures' conversion right into common stock, may be reduced from the current price of \$35 per share to levels much closer to current market prices.

A protest attempt in this direction encountered strong resistance from a number of large debenture holders.

One of the added moves now proposed by the sponsor of the modification plan is a merger with National Airlines. How-

ever, certain Capital debenture holders do not want the proposal with those at the present time. It is this belief that the National battle of National should submit to a complete liquidation and that Capital should further strengthen its basic structure, before entering into any actual merger arrangement.

■ **Capital Leasing—**In the meantime, Capital is prepared to enter into a lease arrangement with the Capital Leasing Corp. for ten years. Reliable sources indicate that Capital will be permitted to rent over about \$1,500,000 of its Model B-3400 capacity, not now in use as part payment toward the lease as possible purchase of the Capital.

Latest reports on the other hand, indicated that Capital was attempting to obtain firm loans for at least 40 planes to replace its fleet. The Reconstruction Finance Corp. is believed inclined to assist in the replacement of the leasing arrangement, providing a maximum of 40 planes are involved.

Military Discount

Twenty-two domestic scheduled airlines had each offered a 5 percent discount on special group baggage allowances on all travel covered by transportation of mail issued and paid for by the National Military Establishment.



PAA MECHANIZES LOADING

Large-scale expansion of cargo operations on Pan American Airlines' Latin American Division (Aviation Week Jan. 10) is being accomplished by extensive use of machinery in order to make loading and unloading jobs. Four new tractor-mounted, pneumatic-tire cargo loaders manufactured by Messier-Bugatti Co., New York, are being used by PAA at Miami, New Orleans, Houston and San Juan. Six more of the \$600 loaders are to be delivered to Pan

American, representing the additional cost of the \$80 million worth of travel infrastructure used annually to military personnel moving under orders under the U. S. Military Airmen, Dec. 17). Since 1955, the airlines have granted a 10 percent discount and a credit now have an arrangement with the annual services whereby, they handle virtually all of the airlines' transfer of passengers.

Airline officials emphasize that their 5 percent discount compares favorably with the military's offer to the military agencies inasmuch as plane service frequently includes free meals and permits to travel savings due to quartering. The airlines' proposed discount covers the fiscal year starting next July 1.

Radio Group Protests

The Flight Radio Officers Air Safety Committee, representing both AEA and CIO groups, has asked CAB to suspend "Northwest Airlines" flights to serve the Pacific Northwest and Hawaii bids until the carrier adds a qualified communications officer to its crew and finally authorized radio equipment on its flights. The union committee charged "great risks" on the part of the Association. Administration for the period, the 7700-mile eastward flight on the present basis.

Trans-Atlantic Commercial Flights for Military

March 15, 1945, through Dec. 31

Carrier	Flights	Pass.	Cargo	Flights	Pass.	Cargo	Flights	Pass.	Cargo
Seaboard & West	41	27	37	34	81	117			
Atlantic Overseas	1	41	1	41	41	41			
Tenneco	1	41	1	41	41	41			
British Overseas Airways	20	1	2	1	36	36			
Pan American	20	1	2	1	36	36			
TWA	1	1	1	1	1	1			
Trans-Cas	1	1	1	1	1	1			

Total 101 261 101 261 101 261 101 261 101 261

* Usually in support of B-29 night missions in USSR

** Usually in support of C-54's B-29 bomber groups in England

*** War birds not count in U.S. Air Force

flights and 1/2 passenger flights made in support of USAF B-29 bomber groups based in England.

A last trans-Atlantic air movement for the military-Casablanca, Casablanca—marked peak activity last month as the Army continued for all available equipment to transport thousands of war brides to the U.S. before expiration of the Alien War Bride Act on Dec. 28. Two hundred and thirty-seven passenger flights were completed during Operation Cross.

► **Largest Carrier-Seaboard & Western Airlines**, New York, made the most trans-Atlantic flights for the Air Force and Army during the six-month period. Of the 41 scheduled operations, 340 DC-4 type, 360 cargo cargo totaling 1,175,790 lb.

American Overseas Airlines can deliver 177 tons, mostly passenger flights, for the three projects. Transocean Air Lines followed with 99 flights. Alaska Airlines made 88 flights. Pan American Airlines 82, TWA 24 and Trans-Canada Air Corp. 14.

Reader's military knowledge, Seaboard & Western Air more than 51 million ton miles of flight between the U.S., Europe and the Middle East during 1945. This compares with 254,790 ton miles flown by the company in the eight months of 1947 following its conversion of trans-Atlantic operations on May 14 of that year.

► **Passenger** for 1946-Military traffic will probably continue during 1947, but high military aviation volume. R&W President Raymond A. Norden says a record amount of commercial air freight will almost certainly move across the North Atlantic this year. He is quoted that the estimated rise in scheduled commercial freight during the last four months of 1945 is a good indicator of European industrial movement under the Marshall plan.

Workload worldwide exceeds length of bodies, essential aids, watches, clocks, pharmaceuticals, toilet papers, food, medicine, bottled and cooking oil. More than 99 percent of scheduled trans-Atlantic airfreight consists of military cargo, with repair and construction machinery accounting for 15 percent and aircraft engines and parts 10 percent.

Nonasked Safety Probe Proposed

Unofficially, safety probe is in hot water on Capitol Hill because of this safety record.

Rep. John A. McGuire (D., Cal.) has introduced a resolution authorizing the House Interstate and Foreign Commerce committee to investigate Civil Aeronautics Board's safety regulations for scheduled

flights which were participating in the military. Civil Aeronautics Board was not used for the military for these cargo projects during the last half of 1945. Prime and largest trans-Atlantic flight was in support of Operation Vittles and in support of Operation Vittles and in support of Operation Vittles and in support of Operation Vittles.

Between June 25 (when the USAF began its "Operation Vittles" flights) and August 1945, the USAF made 680 military crossings for the armed services.

► **Seven-Carrier-Week**—the three authorized and four contract carriers used by the military landed an estimated 3,575,000 lb. of high priority cargo and moved 15,000 passengers. In aggregate, the 610 flights in one week estimated 36 million miles of business by the air.



Board from Western Field, Main, to Frankfurt, Germany, last half of 1945. B-29 bomber was just ahead of a Sea-

board & Western DC-4 airplane for the trans-Atlantic crossing. Also on the plane were about 2000 lb. of aircraft parts.



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passenger flights. It, also, following the recent crash of a DC-3 at Boeing Field, Seattle.

Edo Yale students and the three men, one of the plane, operated by Seattle Air Charter, Inc., now listed in the airport.

Thirty persons were aboard the craft, which was returning the students to New Haven, Conn. ► **Caribbean Reported**—Green sherry surrounding the McGee Robinson was about identical with that found in, Rep. Charles A. Wolcott's investigation a year ago. In both instances a fatal West Coast disaster plane crashed and on East Coast landing in taking a center trans-Atlantic flight. Reports followed each other in quick succession.

Unidentified operators who were hospitalized of Congressional help is thus left against more stringent economic regulations by CAB are fearful that the proposed safety probe will have serious repercussions.

Meanwhile, attorneys for Seattle Air Charter have complained to Washington about information attributed to R. D. Robinson, regional CAA administrator, after the crash. Robinson was quoted as saying the pilot took off against cockpit warning warnings, which the CAA employee himself "was reluctant to tell us how the field was closed."

► **Lower Temperature**—The state said a transcript of twice conversation with the DC-3 showed that the pilot waited on the field after he had bid goodbye was before takeoff. Then, after telling the pilot to leave in the north is apparently likely, the tower cleared the plane for takeoff. "The airplane continued. A CAB hearing is being out the fact of tone was held only for Seattle last week.

Reports indicate the plane's wings had been washed with alcohol as a protection against ice ahead of its use before the landing. During the takeoff a type jet touched the runway and the DC-3 struck into a longer and heavier tone before.

2-0-2 Modifications

The Claus L. Martin Co. plans to make further modifications in its North West Airlines 2-0-2 transport. CAA approval changes were made in the wings following the accident involving a NWA 2-0-2 at Winnetka, Minn. (Aviation Week, Oct. 21). The new modification involves a brace change in the area which should give a permanent solution to the wing problem.

Northwest's plans will go back to the Martin plant for wing reworking in groups of four or five. The contract is for 24 2-0-2s in its fleet.



You probably saw the newsprint stories about the Air Force's new Alouette helicopter which is now under a B-29 and dropped by a parachute 180 feet in diameter. Why a busy new building, 170 feet in diameter, is now under a B-29 and dropped by a parachute 180 feet in diameter. This type of construction building light weight but fireproof structure, built on a B-29, is now under a B-29 and dropped by a parachute 180 feet in diameter.



The Alouette helicopter, newly announced, is 50 feet long and can carry 15 men with provisions. Equipment includes a 4-cylinder engine, water pump, water well, water chiller, fuel and fuel for more than 300 miles.

When it was found that an engine could not be shipped under a B-29 in a container, the Air Force decided to convert to Edo for design development of a new type of shipping container. The container is being developed in the field. The whole container was designed in short weeks by being made of plastic, leaving the container relatively unaltered. In one set, a 47-G load on the aircraft still means only a 2-G impact on the engine itself.

In its field of shipping development, Edo is working on an emergency, special unit for shipping quickly for the past three years, and also shipping engineering and the development of a new direction equipment for the Navy and also are now in production by Edo's Electronics Division.

In the meantime, Edo continues to improve its shipping capabilities. In the meantime, Edo continues to improve its shipping capabilities. In the meantime, Edo continues to improve its shipping capabilities.

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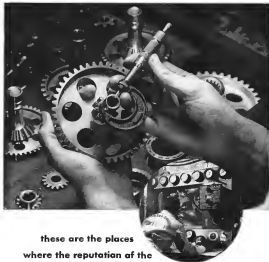
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STRICTLY PERSONAL

BRITISH AIR MAGAZINES ARE NUTTLED—The press, those involved and Irish friends wish to flight out. The *Acropolis*, long successful stories and distribution of its own new U.S. places before any American magazines in publication has been able to tell about them. This has led to U.S. aviation circles as well as the companies.

When *Acropolis* was appeared with the X81 story, which its sensitive letter was described by the American Committee of the U.S. as an excellent public relations effect of a magazine well told as, "Despite the current heat and air, I'd much rather have said about the X81 flight in our own American Week than in *Flight* or *Acropolis*." Such was the feeling in the country.

So, with that background, you can appreciate, with all that note we received the other day from one of the editors of the *Acropolis*.

"Dear Sir: Your issue of Nov. 20 contains no trace of British security regulations—one word being slipping. Yours faithfully, R. G. Wootton."

So Mr. Wootton received this from us:

Dear Mr. Wootton: Your cheery note of alarm arrived this morning. We must apologize for what we trust is only a temporary halt in reports on European aviation developments. It is the missing dispatching a story was made to be in various foreign correspondents urging them to devote less time to McGraw-Hill's 31 other publications and to turn down again for good old *American Week*.

"As to British security regulations, you would hardly expect us to know what they are. Publishers of U.S. aviation magazines have been identified and charged over the years at the ongoing ability of British aviation magazines to learn and print material on our aircraft in this country. Now it would seem the shoe is on the other foot. At any rate, it is a poor business—the aviation journalist—and may the best win out."

From other foreign sources we received a note a few days later telling us: "...a friend of the Minister of Supply, who was aviation in England, called to me an afternoon the fact that *American Week* was granted a permit to publish the British press has refused him entry into the British publisher's agreement not to print material which the Minister considers is not fit for publication. It seems *American Week's* British competition has complained to the Minister."

So we contacted a friend of ours, a seasoned correspondent who works back in London, who has been in Britain as a correspondent for many years. He said that the British press generally, and magazines in particular, are the biggest gossips in the world when it comes to aviation. American aviation techniques? What's more, you know I been thinking in back number of a certain plane taking over. You only top legitimate news sources."

To which we answered: "And you, we do not just believe at *Acropolis*, security. *Acropolis* was a publishing agent which at first had some success for the sake of national welfare. But we cannot forget the dark, more during the war when British commercial editors were British publishing news material about our military aircraft that U.S. editors were withholding. And, anyone who worked in the aviation Office of Government how many times aviation stories were destroyed only because of your publication in *Flight* or *Acropolis*. It makes us a little retrospective at the moment, although we strongly disapprove of the socialist type of censorship the British press appears to conduct with its present government."

• • •

BACK TO NORMAL—Next week this column will return to release and general news. A few contributors have forwarded material, like "including John Cuddy of PAA, Bill Wagner of Ryan, Gilbert Robinson of Lockheed and Rex Eckert. Keep your stories coming."

• • •

HITS ABOUT PEOPLE—E. E. Tashley has been appointed aviation representative of the American Publishers Industries Committee and secretary of the Aviation Advisory Committee, while the well known Bob Dettl, manager of the aviation department of Ross, is elected chairman of the Aviation Advisory Committee. This group studies and recommends to the legislative branch affecting aviation publications industry. Finally also goes Arthur W. H. Brown, a partner in his firm, together aimed on becoming the aviation focus by saving paper through the use of DDT, once with UP and United. For once publishers have become important public relations directors of House Magazine. A. W. H.

WHAT'S NEW

New Books

"Jet Propulsion Turbines" by Volney C. Ford, published by Mechanical Engineering, Standard University, a technical treatment of the history of gas turbine development and recent developments on the practical application of all gas-turbine systems to aircraft, design and operation of turbines. Published by The National Press, Millbrook, Calif. 318 pages, hard cover, photographed.

"The Measurement of Stress and Strain in Solids," a Physics in Industry series, based on proceedings of a conference arranged by the Institute of Physics, London. Hard binding, 114 pages with 11 illustrations and 5 plates. Available from The Institute of Physics, 47 Belgrave Square, London, S. W. 1 Price 3d.

"The Story of Magazines," first in a series of textbooks, by W. H. Gross, Don Chemical Co., Maryland. Vols. available from the American Society for Metals, 7741 Euclid Ave., Cleveland 1, Ohio. 208 pages, hard cover, 31-30.

Trade Literature

"New Products," a compilation of products and services of more than 710 different manufacturers, available from the New York Journal of Commerce, 65 Park Row, New York. Price 10 cents.

"OSTUCC Tubing," a booklet designed as a guide for infusing steel and aluminum tubing, available from Ohio Gasoline, Tube Co., Shelby, Ohio.

"CAA Aviation Reference No. 512," a guide, containing CAA policies and procedures with respect to reporting new technical products, available upon request to Office of Aviation Information, CAA, Washington 25 D. C.

"Measuring Microphones for Laboratory and Shop," a booklet describing and describing microphone microphones and other instruments, available upon request to The General Scientific Corp., 1201 Weymouth Ave., Chicago 14 Ill.

"AC and DC Arc Welders," a folder describing complete complete line of equipment, available upon request to Metal and Thermal Corp., 320 Broad way, New York 5, N. Y.

"Cutting Section No. 105," describing to basic elements, is available upon request to Weston Van Cate, Baltimore 5 Md.

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